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**August 2004**



# \$70 MILLION



**PEO Aviation/PM Longbow Apache, Block II saved \$70M  
using M&S to Design and Evaluate their major program  
upgrade.**



# \$18 MILLION

MODELING FOR ACQUISITION  
ENVIRONMENTS AND TRAINING

IN SMART WE TRUST

18,000,000

**Battlefield Combat Identification System Cost Avoidance by  
using M&S during test. BCIS used the Close Combat  
Tactical Trainer to test the system - cost \$2M to PM vice  
\$20M for Live Testing**





IN SMART WE TRUST

**\$325 THOUSAND**

325,000

SMART

THOUSAND DOLLARS

325,000

**Average cost spent by Program/Product  
Manager  
to a Contractor to write a Simulation Support  
Plan - cost does not include implementation**



**The current number of organizations that are currently strategic partners of the Army SMARTeam including BCSE, PEO STRI, ASA(ALT), RDECOM and HQ TRADOC Futures Center.**



# PRICELESS



**The current cost to a Program Manager/Project Leader to receive assistance from the Army SMARTeam for Modeling and Simulation Planning via the required Simulation Support Plan.**





**PM WIN-T...** "thank you for the SMARTeam support we received. The three day site visit was very productive for my staff and the WIN-T program. Your team members were well prepared, ready to work, and displayed a genuine desire to assist in producing a quality Simulation Support Plan and M&S plan." **COL Cole**

Becky Shell  
Jim Wallace  
Michelle Bevan  
Barbara Pemberton  
MAJ Bryon Hartzog

PEO STRI  
AMSO  
AMSO  
PEO STRI  
TRADOC/ATSC

I wanted to send a note to personally thank you for the SMARTeam support we received. The three day site visit was very productive for my staff and the WIN-T program. Your team members were well prepared, ready to work, and displayed a genuine desire to assist in producing a quality Simulation Support Plan and M&S plan. WIN-T is the Army's future integrating network and meeting program people.

We have tentatively scheduled the meeting and look forward to it.

Best Regards,  
COL Tom Cole  
PM WIN-T

Good Morning Ma'am,  
Wanted to make sure everyone received and could open the SSP. Have drafted a cover memo for TRADOC, the POC is Gwenn Vantree, going to contact her tomorrow and see what we need to do.

LTC Tobin liked the idea of a cover memo, have sent it to the draft, would appreciate any ideas that you'all might have.

Want to thank all of you for your time and effort. We couldn't have done it without you.

Best regards,

**PM Apache...** "want to thank all of you for your time and efforts, we couldn't have done it without you ." **Skip Johnston**



**Documentation without  
implementation is just paper.**

**Make your Modeling and Simulation  
Strategy work for you!**



# SERVICES

- **A single Army belly-button of information regarding M&S tools and where those tools reside. The *SMARTeam* is in the *SMART* execution business - making *SMART* more than just a “concept” - through strategic partnerships.**
- **Provide on-the-spot expertise to Army Project Managers on the use of Modeling and Simulation Support Planning.**
- **Bridge the gap between Modeling and Simulation Policy and execution (and vice versa).**
- **Gathering lessons learned from Army Programs and distributing best business practices and information regarding available models and simulation tools.**



**For support on your program's M&S  
planning:**

**Contact:**

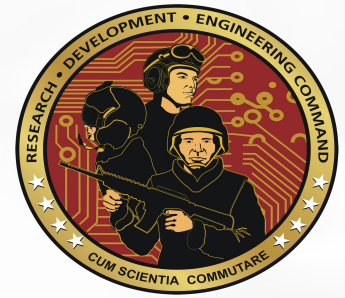
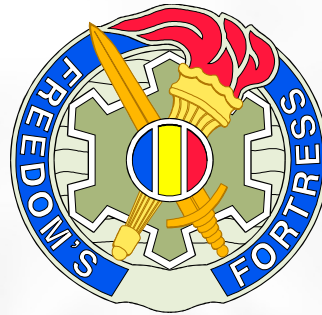
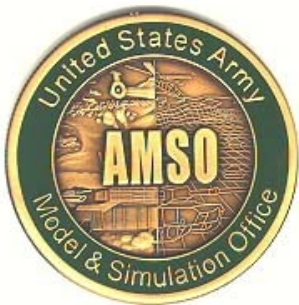
**SMARTeam@PEOSTRI.ARMY.MIL**

**And Visit:**

**WWW.AMSO.ARMY.MIL/SMART**

# BACKUP





*SMART* is a change in Army business practices, through the exploitation of M&S and other information age technologies to facilitate collaboration and synchronization of effort across the total life cycle of Army systems.

- **SMART is about a change in Army business practices**
- The PM develops an M&S strategy that is integrated with and supports the overall acquisition strategy.
- **SMART exploits M&S and related information age technologies**
- Simulation support planning is conducted to determine how M&S can be used to reduce program risk, cost and schedule.
- **SMART is an enabler for successful Army Transformation**
- Future concept analysis, development, test and training efforts will leverage these simulation products to accelerate Army transformation.



## Ongoing Initiatives

**Contact Team Events (CT) :** On the job training on building Simulation Support Plans and other M&S uses.

**Lessons Learned Events (LL):** Gathering information from past DoD projects for others to use.

**Formal Courses:** Classroom training courses ranging from senior leadership classes to specialized training courses with lengths from 1 day to two weeks.

**Strategic Program Partners:** Create a specific partnership with programs – government and industry partners – to further the use and success of M&S in Program Management.



### *Contact Team*

- One Tactical Engagement Simulation System (*OneTESS*) - Jul '04
- Joint Tactical Radio System Cluster 5 (*JTRS C/5*) - Jun '04
- Apache Longbow Block III - Mar '04 & May '04
- Warfighter Information Network-Tactical (*WIN-T*) - Feb '03
- Intelligence Modeling and Simulation for Evaluation (*IMASE*) - Dec '03
- Joint Tactical Radio System Cluster 1 (*JTRS C/1*) - Nov '03
- Fatigue Intervention and Recovery Model (*FIRM*) - Aug '03

### *Lesson Learned*

- Comanche- Jun '04
- Apache Longbow Block III - May '04
- Joint Common Missile (*JCM*) - Jul '03
- Advanced Threat Infrared Countermeasure (*ATIRCM*) - Jul '03
- Aerial Common Sensor (*ACS*) - May '03

## Sample Program Lessons Learned and Distributed

- Creating, documenting and executing an M&S strategy that supports a contractor down-select decision requires clear communication of that strategy and early coordination and collaboration of effort among key system stakeholders. (*WIN-T*)
- Identify opportunities to develop/reuse/leverage models and simulations that can support test and training events, concurrently, if combined test and training events are planned. (*IMASE*)
- Mapping ORD/CDD/CPD KPPs to models and simulations is a crucial initial step in determining how a program can benefit from M&S. (*JTRS CL1*)

- A single Army belly-button of information regarding M&S tools and where those tools reside. The *SMARTeam* is in the *SMART* execution business – making *SMART* more than just a “*concept*” - through strategic partnerships.
- Creating/updating templates and databases using best business practices from current and past programs that saved dollars using M&S as a tool.
- Working with the Combat Developers to ensure they are better able to translate user community capabilities by using actual models and simulation environments and/or a robust M&S planning document for transfer to the Materiel Developer with the Capabilities Documentation for Acquisition.
- Incorporating the JCIDS process into the M&S Planning information for the Combat Developer and Materiel



- PEO STRI Center of Excellence in Materiel Development and Life Cycle Support of Modeling, Simulation, Training and Testing Products for the Army. Capable of making a difference to meet Army Transformation Objectives and DoD Training Transformation Objectives.
  - PEO STRI understands and lives the differences between domains in M&S and Acquisition and provides translations and cross over information to both communities.
- Reorganization interviews with ASA (ALT) leadership determined that they see PEO STRI as the coordinator of M&S/SMART efforts.
- Currently has strategic relationship with UA in the M&S realm including KPP #6 – Training. PM FF(S) directly supports the PM UA SMART Management Office. Currently providing SMART expertise to external PEOs providing expertise to write Simulation Support Plans and M&S requirements



## SMART Resources Policy and Guidance

### ***DoD Instruction 5000.2 May 12, 2003***

Modeling and Simulation (M&S). The PM shall plan for M&S throughout the acquisition life cycle. The PM shall identify and fund required M&S resources early in the life cycle.

### ***Army Acquisition Policy AR 70-1 December 31, 2003***

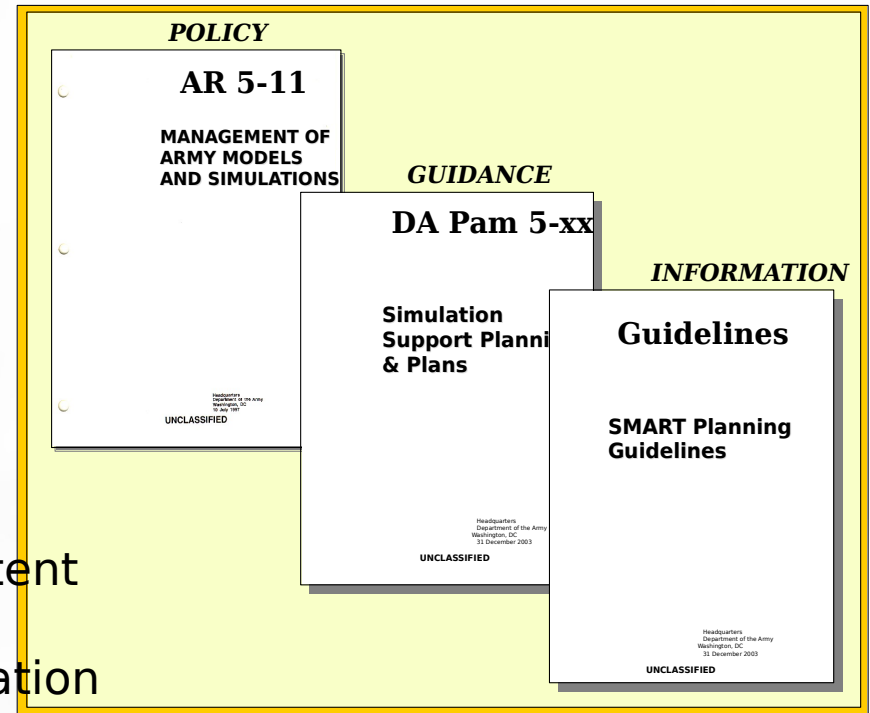
The MATDEV is responsible for the effective use of M&S. It is critical that coordination among agencies with significant expertise in M&S and their supporting activities is effectively managed. The MATDEV plans, manages, documents and communicates the M&S approach and needs by maintaining a Simulation Support Plan.

### ***Army M&S Management Policy AR 5-11 August 10, 1997***

A simulation support plan will be developed for all ACAT I and II and non-major programs. VV&A activities will be included in the simulation support plan.

## Three tiers:

- ❑ AR 5-11 – Being revised to include SMART concept and clarify requirement for SSPs
- ❑ DA Pam on Simulation Support Planning and Plans:
  - Detailed requirements for SSPs
  - SSP Proponent
  - SSP development, format & content
  - CDD to SSP crosswalk
  - Authoritative System Representation
- ❑ SMART Planning Guidelines
  - Sep 02, Appendix C revised – SSP management, form & content
  - Future update after draft DA Pam 5-xx published



1996: SAAL: SSPs required

1997: SSP Guidelines

2000: SMART Planning Guidelines

2000: SMART Execution Plan

2001: TRADOC: SSPs part of ICT  
process

2001: CSA approves Army  
requirements

2002: AMSO added as AROC Advisor

2003: TRADOC: Rqmts docs require  
SSPs *Simulation Support Plans are being used today to support  
decisions about Army programs.*